



Hawaii Economic Structure Analysis Using the Industry Level Gross Domestic Product Data



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EXECUTIVE SUMMARY

The gross domestic product (GDP) in a region is the monetary value of all goods and services produced within the geographic area of the region in a particular period of time. It is the broadest quantitative measure of a region's total economic activity.

Top Five Industries: Hawaii and the U.S.

Though preliminary 2021 GDP data at the state level is available at the time of writing, 2020 GDP is used due to the data availability at the county level. In this study, the economies (national, state, and county) are divided into 20 industry groups based on roughly the two-digit North American Industry Classification System (NAICS) code. The state of Hawaii generated approximately \$82.9 billion of nominal GDP in 2020. The government sector generated the most GDP at about \$18.6 billion or 22.5%; followed by real estate and rental and leasing at about \$15.4 billion or 18.6%, health care and social assistance at about \$6.5 billion or 7.9%, retail trade at about \$5.8 billion or 7.0%, and accommodation and food services at about \$5.6 billion or 6.7%. The top five groups in Hawaii accounted for 62.7% of total nominal GDP in 2020. The same five groups in the U.S. accounted for 41.8% of total GDP in 2020. The top five groups in the U.S. in 2020 were real estate and rental and leasing, government, manufacturing, finance and insurance, and professional, scientific, and technical services. The top five groups in the U.S. accounted for 53.4% of total nominal GDP in 2020, and the same five groups in Hawaii accounted for 51.5% of total GDP in 2020. Based on GDP for the top five industry groups, Hawaii's economy is more concentrated than the U.S. economy.

The gap in 2020 GDP share between Hawaii and the U.S. was largest in the government group, with the share of Hawaii above that of the nation by 9.7 percentage points; followed by real estate and rental and leasing by 5.1 percentage points, and accommodation and food services by 4.3 percentage points. On the other hand, the share of Hawaii in manufacturing was below that of the nation by 9.3 percentage points; followed by finance and insurance by 4.2 percentage points, and professional, scientific, and technical services by 3.3 percentage points.

TABLE S1. TOP FIVE INDUSTRY GROUPS IN THE STATE OF HAWAII AND THE U.S. IN 2020

Industry Group	% of Total Nominal GDP in 2020		
	Hawaii	U.S.	HI above U.S.
Top 5 Sectors in State of Hawaii	62.7%	41.8%	20.9%
Government	22.5%	12.8%	9.7%
Real estate and rental and leasing	18.6%	13.4%	5.1%
Health care and social assistance	7.9%	7.4%	0.5%
Retail trade	7.0%	5.8%	1.3%
Accommodation and food services	6.7%	2.4%	4.3%
Top 5 Sectors in the U.S.	51.5%	53.4%	-1.9%
Real estate and rental and leasing	18.6%	13.4%	5.1%
Government	22.5%	12.8%	9.7%
Manufacturing	1.6%	10.9%	-9.3%
Finance and insurance	4.4%	8.6%	-4.2%
Professional, scientific, and technical services	4.5%	7.8%	-3.3%

Source: BEA and DBEDT, READ.

Top Five Industries: Counties in Hawaii

The top five industry groups that generated the most GDP in 2020 by counties in Hawaii are provided in Table S2. Economies in neighbor island counties are more concentrated on tourism. Accommodation and food services industry appeared among the top five industry groups in all neighbor island counties.

TABLE S2. TOP FIVE INDUSTRY GROUPS IN 2020 BY COUNTY AND FOR THE STATE OF HAWAII

Industry Group	% of Total Nominal GDP in 2020		
	County	State	County above State
Top 5 Sectors in Honolulu	62.7%	62.4%	0.3%
Government	25.1%	22.5%	2.6%
Real estate and rental and leasing	17.0%	18.6%	-1.6%
Health care and social assistance	8.2%	7.9%	0.3%
Construction	6.3%	6.5%	-0.2%
Retail trade	6.1%	7.0%	-0.9%
Top 5 Sectors in Maui	67.5%	62.7%	4.9%
Real estate and rental and leasing	22.7%	18.6%	4.2%
Accommodation and food services	16.6%	6.7%	9.9%
Government	11.0%	22.5%	-11.5%
Retail trade	9.5%	7.0%	2.5%
Health care and social assistance	7.6%	7.9%	-0.3%
Top 5 Sectors in Hawaii County	66.8%	62.7%	4.2%
Real estate and rental and leasing	24.5%	18.6%	6.0%
Government	18.0%	22.5%	-4.5%
Retail trade	9.9%	7.0%	2.9%
Accommodation and food services	7.7%	6.7%	1.0%
Health care and social assistance	6.8%	7.9%	-1.1%
Top 5 Sectors in Kauai	67.7%	62.4%	5.3%
Real estate and rental and leasing	24.5%	18.6%	5.9%
Government	17.5%	22.5%	-4.9%
Retail trade	10.8%	7.0%	3.8%
Construction	8.9%	6.5%	2.4%
Health care and social assistance	6.0%	7.9%	-1.9%

Source: BEA and DBEDT, READ.

Top Five Contributors to Economic Growth 2001-2020: Hawaii and the U.S.

From 2001 to 2020, total real GDP (in 2012\$) in the state of Hawaii increased approximately \$14.7 billion. The real estate and rental and leasing sector contributed the most real GDP at about 27.8%; followed by government at about 18.9%, health care and social assistance at about 15.3%, retail trade at about 8.0%, and professional, scientific, and technical services at about 7.6%. The top five groups in Hawaii accounted for 77.6% of total additional real GDP from 2001 to 2020. The same five groups in the U.S. accounted for 46.4% of total additional real GDP from 2001 to 2020. The top five groups in the U.S. accounted for 66.4% of total additional real GDP from 2001 to 2020, and the same five groups in Hawaii accounted for 57.3% of total additional real GDP from 2001 to 2020.

The large contribution to economic growth in Hawaii by the real estate and rental and leasing sector was partially due to the rapid growth of imputed rent, which does not create additional jobs in the economy. Imputed rent is the rental price an individual would pay for an asset they own.

The gap in real GDP contribution between Hawaii and the U.S. was largest in government, with the share of Hawaii above that of the nation by 14.9 percentage points; followed by real estate and rental and leasing by 13.5 percentage points, and health care and social assistance by 5.0 percentage points. On the other hand, the share of Hawaii in manufacturing was below that of the nation by 12.0 percentage points; followed by information by 10.3 percentage points, and professional, scientific, and technical services by 5.4 percentage points.

TABLE S3. TOP FIVE INDUSTRY GROUPS IN THE STATE OF HAWAII AND THE U.S. THAT CONTRIBUTED MOST REAL GDP FROM 2001 TO 2020

Industry Group	% of Total Additional Real GDP, 2001-2020		
	Hawaii	U.S.	HI above U.S.
Top 5 Sectors in the State of Hawaii	77.6%	46.4%	31.2%
Real estate and rental and leasing	27.8%	14.2%	13.5%
Government	18.9%	4.0%	14.9%
Health care and social assistance	15.3%	10.3%	5.0%
Retail trade	8.0%	4.9%	3.1%
Professional, scientific, and technical services	7.6%	12.9%	-5.4%
Top 5 Sectors in the U.S.	57.3%	66.4%	-9.1%
Information	7.1%	17.4%	-10.3%
Real estate and rental and leasing	27.8%	14.2%	13.5%
Professional, scientific, and technical services	7.6%	12.9%	-5.4%
Manufacturing	-0.5%	11.5%	-12.0%
Health care and social assistance	15.3%	10.3%	5.0%

Source: BEA and DBEDT, READ.

Top Five Contributors to Economic Growth 2001-2020: Counties in Hawaii

The top five industry groups that contributed the most additional real GDP from 2001 to 2020 by county are provided in Table S4.

TABLE S4. TOP FIVE INDUSTRY GROUPS THAT GENERATED THE MOST GDP FROM 2001 TO 2020 BY COUNTY IN COMPARISON WITH STATE

Industry Group	% of Total Additional Real GDP, 2001-2020		
	County	State	County above State
Top 5 Sectors in Honolulu	77.0%	76.7%	0.3%
Real estate and rental and leasing	23.7%	27.8%	-4.0%
Government	20.7%	18.9%	1.8%
Health care and social assistance	16.1%	15.3%	0.8%
Professional, scientific, and technical services	8.5%	7.6%	1.0%
Information	7.9%	7.1%	0.8%
Top 5 Sectors in Maui	89.6%	74.3%	15.3%
Real estate and rental and leasing	38.7%	27.8%	10.9%
Health care and social assistance	21.6%	15.3%	6.2%
Retail trade	15.1%	8.0%	7.1%
Government	8.1%	18.9%	-10.8%
Administrative and waste management services	6.1%	4.3%	1.8%
Top 5 Sectors in Hawaii County	75.8%	70.1%	5.7%
Real estate and rental and leasing	31.3%	27.8%	3.6%
Government	15.6%	18.9%	-3.4%
Retail trade	12.7%	8.0%	4.7%
Health care and social assistance	8.4%	15.3%	-6.9%
Agriculture, forestry, fishing, and hunting	7.8%	0.1%	7.7%
Top 5 Sectors in Kauai	91.5%	66.7%	24.8%
Real estate and rental and leasing	38.5%	27.8%	10.7%
Government	17.7%	18.9%	-1.2%
Retail trade	14.8%	8.0%	6.8%
Construction	12.3%	4.5%	7.8%
Professional, scientific, and technical services	8.2%	7.6%	0.6%

Source: BEA and DBEDT, READ.

I. INTRODUCTION

The gross domestic product (GDP) in a region is the monetary value of all goods and services produced within the geographic area of the region in a particular period of time. It is the broadest quantitative measure of a region's total economic activity and is one of the most observed economic indicators by policymakers, businesses, and the public.

Research Objectives

This study attempts to analyze the structural changes in the economies of the Nation, Hawaii State, and the individual counties in Hawaii's between 2001 and 2020 using the GDP by industry data. This period covers the most recent two business cycles. Through comparisons of the industry structures and industry contributions to economic growth, industry advantages and economic diversification can be identified.

Data Sources and Definitions

Data used in this study mainly come from the U.S. Bureau of Economic Analysis (BEA). In the BEA's GDP by State Account, GDP by industry data are available. Both nominal and real GDP data at the 2-digit North American Industry Classification System (NAICS) code level for the state are available from 1997 to 2020.

In the BEA's GDP by County Account, GDP from 2001 to 2020 are available at the 2-digit NAICS level for Honolulu and most of the 2-digit NAICS level for Maui. GDP for some of the 2-digit NAICS level for Hawaii County and Kauai County are not available. The missing GDP data at the 2-digit NAICS level for Hawaii County and Kauai County are estimated based on the two counties shares in earnings calculated from the BEA's Personal Income and Employment Account and data from Economic Modeling Specialists, Inc. (EMSI).

Based on the BEA, the values included in this study are defined as follows:

GDP by state is the measure of the market value of all final goods and services produced within a state in a particular period of time. In concept, an industry's GDP by state, referred to as its "value added", is equivalent to its gross output (sales or receipts and other operating income, commodity taxes, and inventory change) minus its intermediate inputs (consumption of goods and services purchased from other U.S. industries or imported). GDP by state is the state counterpart of the Nation's GDP, the Bureau's featured and most comprehensive measure of U.S. economic activity.

Real GDP is an inflation-adjusted measure of gross product. The real estimates of GDP are measured in chained (2012) dollars.

Major Industry Groups of the Economy

Based on the data availability, the economy is grouped into 20 industry groups based on roughly the two-digit NAICS code. As shown in Table 1, in 2020, the state of Hawaii generated approximately \$82.9 billion of nominal GDP. The government sector generated the most GDP at about \$18.6 billion or 22.5%; followed by real estate and rental and leasing at about \$15.4 billion or 18.6%, health care and social assistance at about \$6.5 billion or 7.9%, retail trade at about \$5.8 billion or 7.0%, and accommodation and food services at about \$5.6 billion or 6.7%. The top five groups in Hawaii accounted for 62.7% of total nominal GDP in 2020.

The large share of real estate and rental and leasing in GDP is partially due to the inclusion of imputed rent in this sector. Without imputed rent, the share of real estate and rental and leasing in GDP would be much smaller. Imputed rent does not create many jobs.

TABLE 1. NOMINAL GDP BY INDUSTRY IN THE STATE OF HAWAII IN 2020

Rank	Industry Group	2020 GDP (\$M)	Share of 2020 Total GDP
1	Government	18,616	22.5%
2	Real estate and rental and leasing	15,387	18.6%
3	Health care and social assistance	6,539	7.9%
4	Retail trade	5,821	7.0%
5	Accommodation and food services	5,568	6.7%
6	Construction	5,390	6.5%
7	Professional, scientific, and technical services	3,729	4.5%
8	Finance and insurance	3,648	4.4%
9	Transportation and warehousing	2,791	3.4%
10	Wholesale trade	2,748	3.3%
11	Administrative and waste management services	2,537	3.1%
12	Other services, except government	1,914	2.3%
13	Information	1,814	2.2%
14	Utilities	1,803	2.2%
15	Manufacturing	1,321	1.6%
16	Management of companies and enterprises	1,089	1.3%
17	Educational services	917	1.1%
18	Arts, entertainment, and recreation	801	1.0%
19	Agriculture, forestry, fishing, and hunting	383	0.5%
20	Mining	68	0.1%
	Total	82,885	100.0%

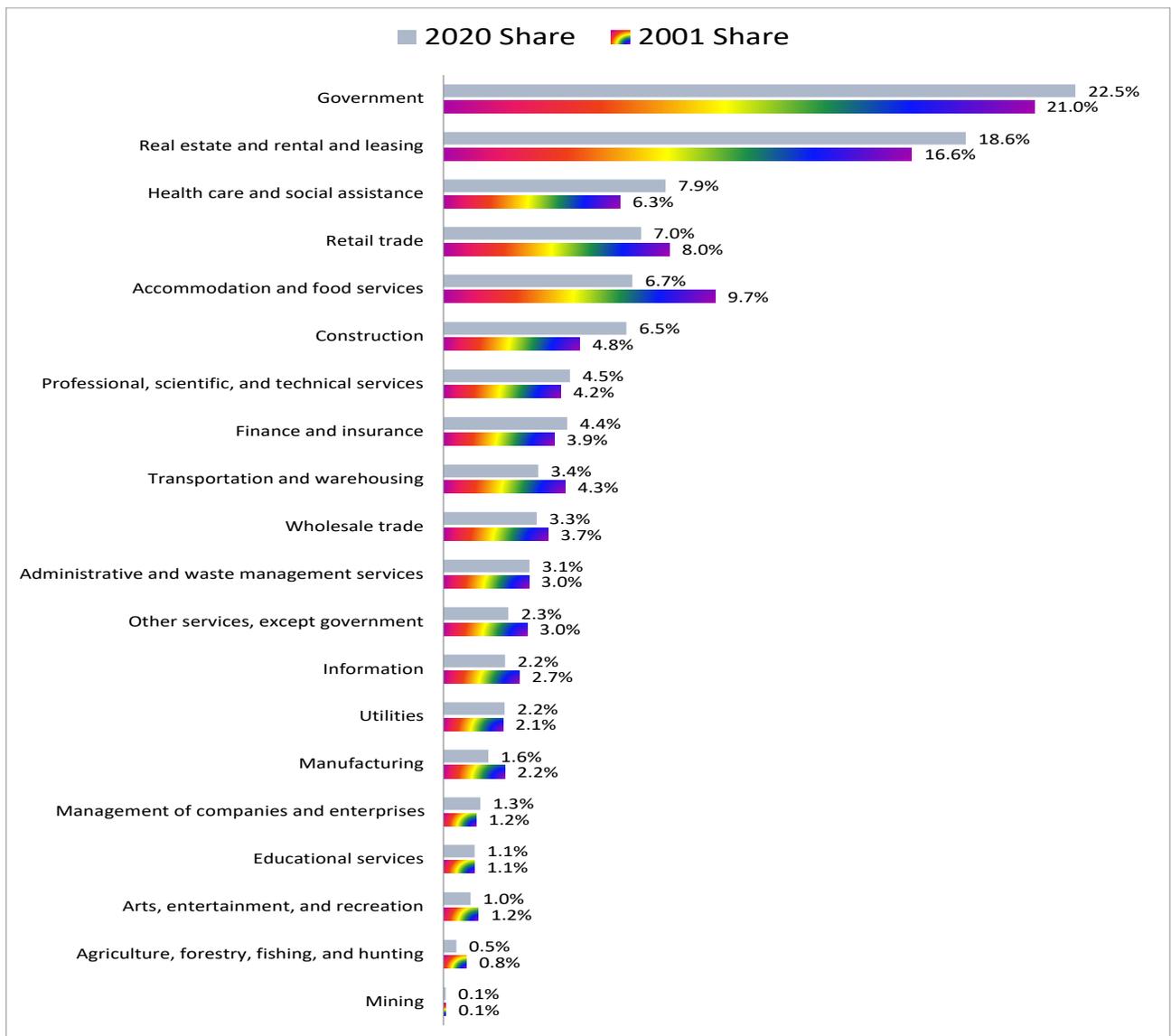
Source: BEA and DBEDT, READ.

II. INDUSTRY STRUCTURAL CHANGE: HAWAII STATE

Changing Industrial Structures in Hawaii

The industrial structure in terms of GDP has changed over time. As shown in Figure 1, from 2001 to 2020, 14 of the 20 sectors lost their shares in total nominal GDP, six sectors gained their shares in nominal GDP. The real estate and rental and leasing sector gained the most, followed by transportation and warehousing, construction, health care and social assistance, and administrative and waste management services. The retail trade sector lost the most, followed by government, other services, except government, wholesale trade, and information.

FIGURE 1. PERCENT OF NOMINAL GDP BY INDUSTRY



In 2020, the tourism-related sectors, such as accommodation and food services, retail trade, transportation and warehousing, and arts, entertainment, and recreation sector decreased their

contribution to nominal GDP due to the impact of COVID-19, these tourism-related sectors were hit the hardest in 2020.

As shown in Table 2, among the 20 sectors, the government sector had the largest share of nominal GDP in 2020; followed by real estate and rental and leasing, health care and social assistance, retail trade, and accommodation and food services.

TABLE 2. SHARES OF TOTAL NOMINAL GDP BY INDUSTRY

	Industry Group	Shares of Total			Changes in Shares		
		2001	2019	2020	01 to 19	01 to 20	19 to 20
1	Government	21.0%	19.9%	22.5%	-1.1%	1.5%	2.6%
2	Real estate and rental and leasing	16.6%	17.1%	18.6%	0.5%	1.9%	1.4%
3	Health care and social assistance	6.3%	7.2%	7.9%	0.9%	1.6%	0.7%
4	Retail trade	8.0%	6.7%	7.0%	-1.3%	-1.0%	0.3%
5	Accommodation and food services	9.7%	10.6%	6.7%	1.0%	-2.9%	-3.9%
6	Construction	4.8%	5.7%	6.5%	0.8%	1.7%	0.8%
7	Professional, scientific, and technical services	4.2%	4.2%	4.5%	0.1%	0.3%	0.3%
8	Finance and insurance	3.9%	3.6%	4.4%	-0.3%	0.5%	0.8%
9	Transportation and warehousing	4.3%	6.0%	3.4%	1.7%	-1.0%	-2.7%
10	Wholesale trade	3.7%	3.3%	3.3%	-0.4%	-0.4%	0.0%
11	Administrative and waste management services	3.0%	3.0%	3.1%	0.0%	0.0%	0.0%
12	Other services, except government	3.0%	2.4%	2.3%	-0.6%	-0.7%	-0.1%
13	Information	2.7%	2.2%	2.2%	-0.5%	-0.5%	0.0%
14	Utilities	2.1%	2.0%	2.2%	-0.1%	0.1%	0.2%
15	Manufacturing	2.2%	1.7%	1.6%	-0.5%	-0.6%	-0.1%
16	Management of companies and enterprises	1.2%	1.3%	1.3%	0.1%	0.2%	0.0%
17	Educational services	1.1%	1.1%	1.1%	0.0%	0.0%	0.0%
18	Arts, entertainment, and recreation	1.2%	1.3%	1.0%	0.1%	-0.3%	-0.4%
19	Agriculture, forestry, fishing, and hunting	0.8%	0.4%	0.5%	-0.4%	-0.4%	0.1%
20	Mining	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%
	Total	100.0%	100.0%	100.0%	0.0%	0.0%	0.0%

Source: BEA and DBEDT, READ.

Table 3 shows the changes in the GDP shares of the four tourism intensive industries between 2001 and 2020 for the state of Hawaii. From 2001 to 2020, the total share of the four tourism intensive industries decreased from 23.3% to 18.1%. The shares of all four sectors decreased.

TABLE 3. SHARES OF TOURISM INTENSIVE INDUSTRIES IN NOMINAL GDP

Industry Group	% of Total Nominal GDP		
	2001	2020	Changes
Tourism Intensive Sectors in the State of Hawaii			
Retail trade	8.0%	7.0%	-1.0%
Transportation and warehousing	4.3%	3.4%	-1.0%
Arts, entertainment, and recreation	1.2%	1.0%	-0.3%
Accommodation and food services	9.7%	6.7%	-2.9%
Tourism Intensive	23.3%	18.1%	-5.2%

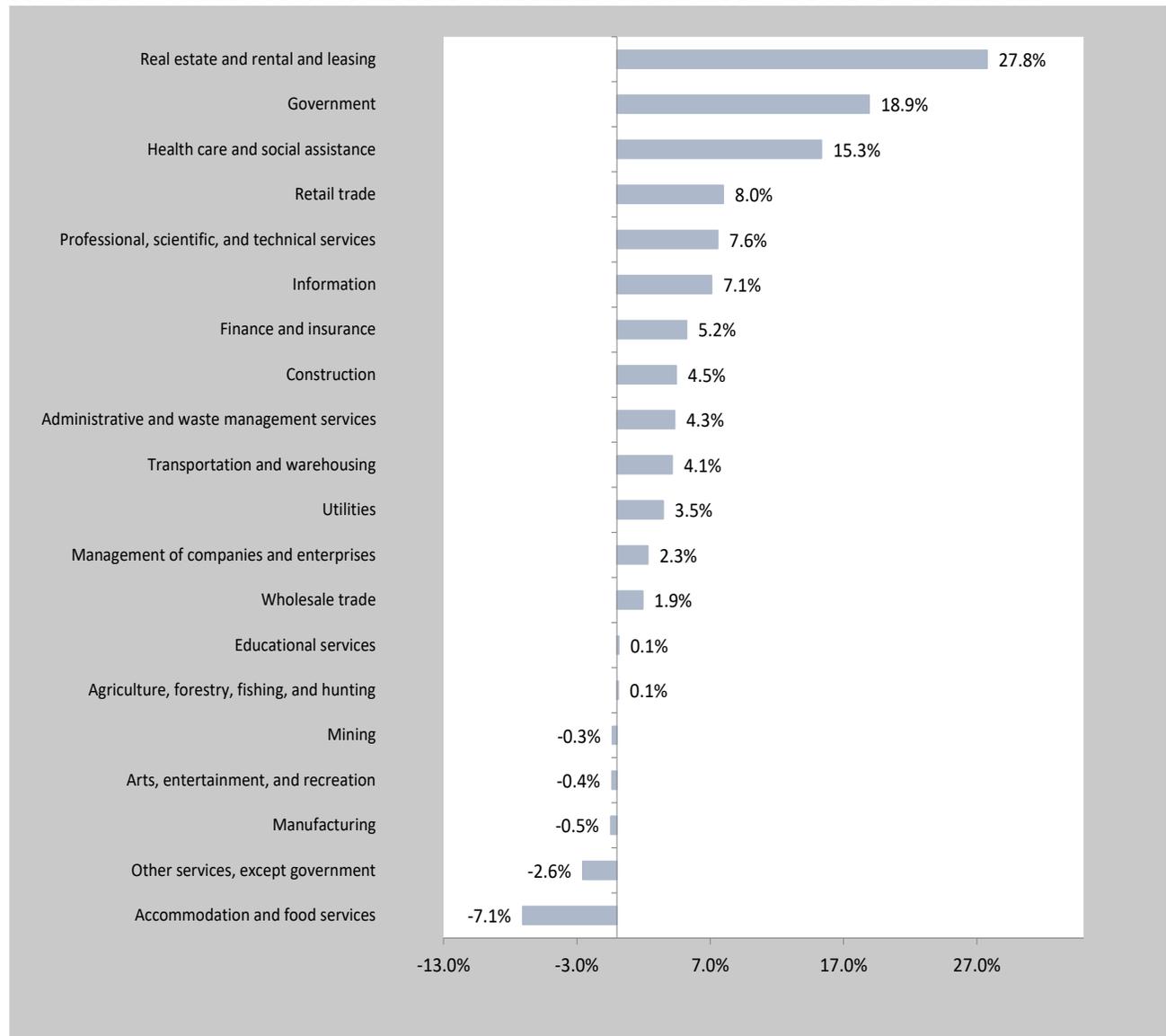
Source: BEA and DBEDT, READ.

Though the two tourism intensive industries – Accommodation and food services and Retail trade lost shares in GDP between 2001 and 2020, they were still among the top five industries in terms of nominal GDP in 2020.

Sector Contribution to Real GDP Growth

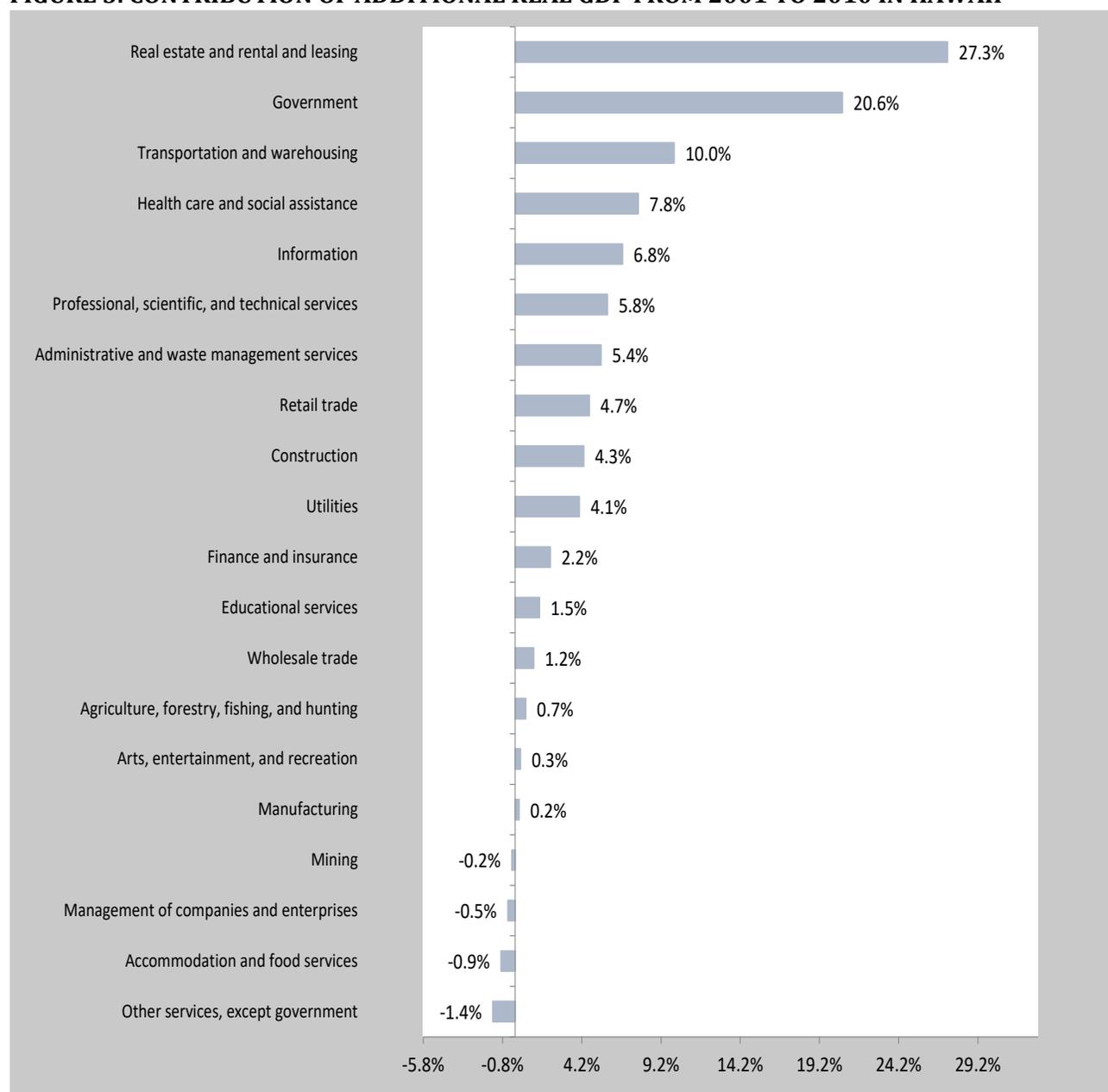
From 2001 to 2020, total real GDP in Hawaii (in 2012\$) increased \$14.7 billion or about 26.3%. As shown in Figure 2, from 2001 to 2020, the real estate and rental and leasing sector contributed the most at 27.8% of additional real GDP, followed by government at 18.9%, healthcare and social assistance at 15.3%, retail trade at 8.0%, and professional, scientific, and technical services at 7.6%. The top five industry groups together contributed about 77.6% of total additional real GDP from 2001 to 2020.

FIGURE 2. CONTRIBUTION OF ADDITIONAL REAL GDP FROM 2001 TO 2020 IN HAWAII



The sector contributions of real GDP during the past two expansion periods: 2001-2010 and 2010-2020 are different. From 2001 to 2010, total real GDP (in2012\$) in Hawaii increased about \$13.6 billion or about 24.3%. As shown in Figure 3, from 2001 to 2010, the real estate and rental and leasing sector contributed the most at 27.3% of additional real GDP; followed by government at 20.6%, transportation and warehousing at 10.0%, healthcare and social assistance at 7.8%, and information at 6.8%. The top five industry groups together contributed about 72.5% of total additional real GDP from 2001 to 2010.

FIGURE 3. CONTRIBUTION OF ADDITIONAL REAL GDP FROM 2001 TO 2010 IN HAWAII



From 2010 to 2020, total real GDP in Hawaii increased only about \$1.1 billion or about 1.6%. The small increase between 2010 to 2020 was due to a \$8.5 billion or 10.7% decrease from 2019 to 2020 caused by COVID-19. As shown in Figure 4, from 2010 to 2020, the health care and social assistance sector contributed the most at 108.4% of additional real GDP; followed by retail trade at 48.5%, finance and insurance at 42.2%, management of companies and enterprises at 36.4%, and real estate and rental and leasing at 33.5%.

FIGURE 4. CONTRIBUTION OF ADDITIONAL REAL GDP FROM 2010 TO 2020 IN HAWAII

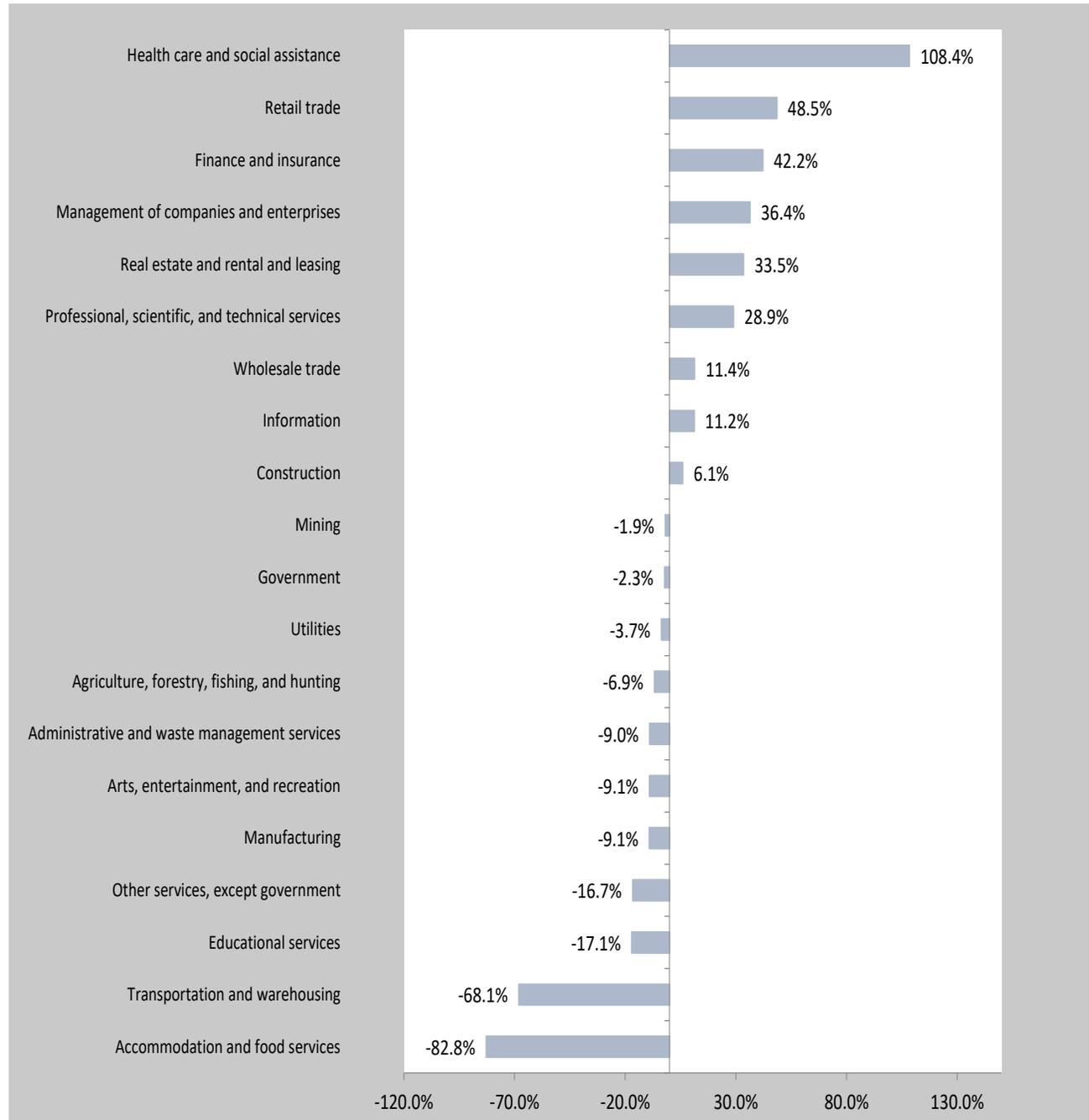


Table 4 shows the state-level real GDP (in 2012\$) by sectors. From 2001 to 2010, total real GDP increased 2.4% per year on average. Among the 20 sectors, four sectors had negative growth in real GDP. From 2010 to 2019, the annual average growth rate of total real GDP decreased to 1.4%. Four of the 20 sectors had negative growth. From 2019 to 2020, the annual growth rate of total real GDP was negative 10.7%. 16 of the 20 sectors had negative growth. From 2019 to 2020, the largest decrease occurred in accommodation and food services, decreased 42.3%; followed by transportation and warehousing (decreased 41.6%), arts, entertainment, and recreation (decreased 37.3%), other services, except government (decreased 17.3%), and educational services (decreased 13.9%).

TABLE 4. STATE OF HAWAII REAL GDP BY SECTORS (\$M)

SECTOR	Industry Group	2001	2010	2019	2020	Annual Growth 01-10	Annual Growth 10-19	Annual Growth 19-20
1	Agriculture, forestry, fishing, and hunting	547	639	513	562	1.7%	-2.4%	9.6%
2	Mining	123	94	79	73	-2.9%	-1.9%	-7.8%
3	Utilities	1,064	1,617	1,563	1,576	4.8%	-0.4%	0.8%
4	Construction	3,256	3,846	3,903	3,913	1.9%	0.2%	0.3%
5	Manufacturing	1,507	1,540	1,632	1,439	0.2%	0.6%	-11.8%
6	Wholesale trade	2,110	2,270	2,614	2,396	0.8%	1.6%	-8.3%
7	Retail trade	4,103	4,741	5,939	5,280	1.6%	2.5%	-11.1%
8	Transportation and warehousing	2,027	3,395	4,522	2,639	5.9%	3.2%	-41.6%
9	Information	1,004	1,927	2,229	2,052	7.5%	1.6%	-8.0%
10	Finance and insurance	1,970	2,272	2,587	2,740	1.6%	1.5%	5.9%
11	Real estate and rental and leasing	8,611	12,330	13,333	12,702	4.1%	0.9%	-4.7%
12	Professional, scientific, and technical services	2,277	3,071	3,579	3,392	3.4%	1.7%	-5.2%
13	Management of companies and enterprises	825	762	1,259	1,167	-0.9%	5.7%	-7.3%
14	Administrative and waste management services	1,499	2,238	2,405	2,138	4.5%	0.8%	-11.1%
15	Educational services	721	930	861	741	2.9%	-0.9%	-13.9%
16	Health care and social assistance	3,502	4,560	5,961	5,764	3.0%	3.0%	-3.3%
17	Arts, entertainment, and recreation	702	747	1,032	646	0.7%	3.6%	-37.3%
18	Accommodation and food services	5,516	5,393	7,754	4,474	-0.2%	4.1%	-42.3%
19	Other services, except government	1,853	1,661	1,784	1,476	-1.2%	0.8%	-17.3%
20	Government	12,801	15,614	15,665	15,589	2.2%	0.0%	-0.5%
	Total	56,018	69,648	79,211	70,758	2.4%	1.4%	-10.7%

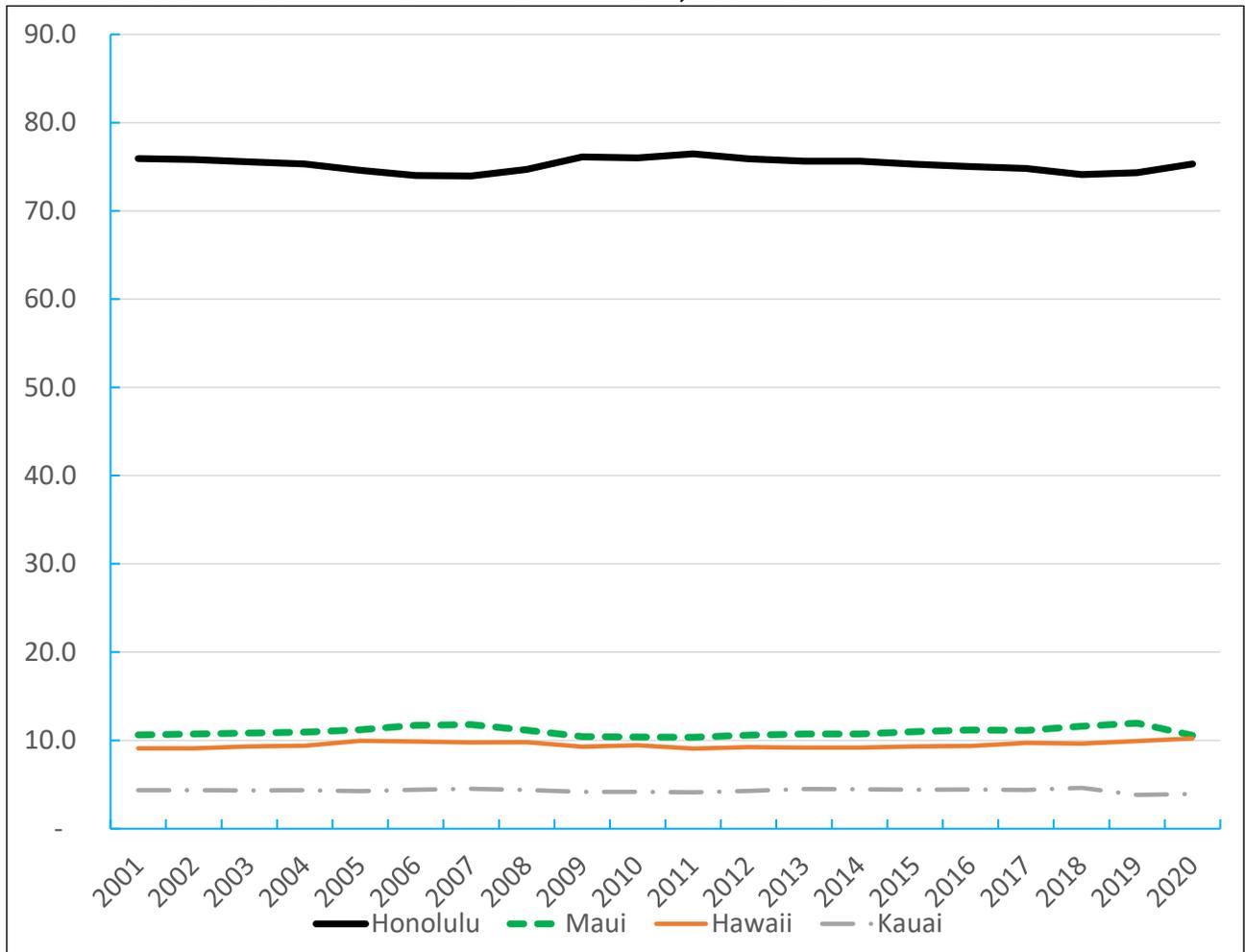
Source: BEA and DBEDT, READ.

III. INDUSTRY STRUCTURAL CHANGE: COUNTIES IN HAWAII

County Shares of State GDP by Industry

From 2001 to 2020, the shares of Honolulu, Maui, and Kauai in total state GDP decreased, while the share of Hawaii County increased. As shown in Figure 5, from 2001 to 2020, Honolulu's share of nominal GDP decreased from 75.9% to 75.3%, Maui's share decreased from 10.6% to 10.5%, Kauai's share decreased from 4.3% to 3.9%, and Hawaii County's share increased from 9.1% to 10.2%.

FIGURE 5. COUNTY'S SHARE IN STATE NOMINAL GDP, 2001-2020



As shown in Table 5, in 2001, Honolulu's shares in state nominal GDP ranged from 51.2% in accommodation and food services to 88.0% in finance and insurance. Twelve of the 20 sectors in Honolulu had shares above Honolulu's share of total nominal GDP. Maui's shares in state nominal GDP ranged from 4.7% in educational services to 25.9% in arts, entertainment, and recreation. Six of the 20 sectors in Maui had shares above its share of total nominal GDP. Hawaii County's shares in state nominal GDP ranged from 2.4% in finance and insurance to 22.2% in agriculture, forestry, fishing, and hunting. Seven of the 20 sectors in Hawaii County had shares above its share of total nominal GDP. Kauai's shares in state nominal GDP ranged from 0.8% in transportation and warehousing to 12.2% in agriculture, forestry, fishing, and hunting. Nine of the 20 sectors in Kauai had shares above its share of total nominal GDP.

TABLE 5. COUNTIES' SHARES OF NOMINAL GDP BY INDUSTRY-2001

	Industry Group	State	% of State Total			
		\$M	Honolulu	Maui	Hawaii	Kauai
1	Agriculture, forestry, fishing, and hunting	352	59.2	6.4	22.2	12.2
2	Mining	39	74.4	8.3	8.7	8.5
3	Utilities	898	71.5	13.2	11.0	4.3
4	Construction	2,065	66.6	15.4	14.2	3.8
5	Manufacturing	928	83.8	8.0	6.4	1.7
6	Wholesale trade	1,585	85.5	6.1	5.8	2.6
7	Retail trade	3,420	70.9	12.6	11.2	5.2
8	Transportation and warehousing	1,840	81.2	9.2	8.8	0.8
9	Information	1,151	82.7	8.4	5.5	3.4
10	Finance and insurance	1,676	88.0	4.9	2.4	4.7
11	Real estate and rental and leasing	7,087	71.7	12.3	11.1	5.0
12	Professional, scientific, and technical services	1,775	87.1	5.6	5.4	1.9
13	Management of companies and enterprises	495	80.1	8.5	6.7	4.7
14	Administrative and waste management services	1,290	77.9	10.0	6.8	5.3
15	Educational services	468	88.0	4.7	5.5	1.8
16	Health care and social assistance	2,673	79.8	7.6	8.8	3.8
17	Arts, entertainment, and recreation	530	54.0	25.9	12.5	7.7
18	Accommodation and food services	4,111	51.2	25.0	13.8	10.0
19	Other services, except government	1,264	78.5	9.9	8.0	3.6
20	Government	8,939	85.5	5.1	6.8	2.6
	Total	42,585	75.9	10.6	9.1	4.3

Source: BEA and DBEDT, READ.

As shown in Table 6, in 2020, Honolulu's shares in state nominal GDP ranged from 27.7% in agriculture, forestry, fishing, and hunting to 94.0% in mining. Eleven of the 20 sectors in Honolulu had shares above Honolulu's share of total nominal GDP. Maui's shares in state nominal GDP ranged from 4.6% in finance and insurance to 26.0% in accommodation and food services. Eight of the 20 sectors in Maui had shares above its share of total nominal GDP. Hawaii County's shares in state nominal GDP ranged from 0.0% in mining to 53.7 in agriculture, forestry, fishing, and hunting. Nine of the 20 sectors in Hawaii County had shares above its share of total nominal GDP. Kauai's shares in state nominal GDP ranged from 0.0% in mining to 8.6% in arts, entertainment, and recreation. Ten of the 20 sectors in Kauai had shares above its share of total nominal GDP.

TABLE 6. COUNTIES' SHARES OF NOMINAL GDP BY INDUSTRY-2020

	Industry Group	State \$M	County % of State Total			
			Honolulu	Maui	Hawaii	Kauai
1	Agriculture, forestry, fishing, and hunting	383	27.7	13.0	53.7	5.5
2	Mining	68	94.0	6.1	-	-
3	Utilities	1,803	71.3	9.2	12.5	7.1
4	Construction	5,390	72.4	11.7	10.6	5.3
5	Manufacturing	1,321	80.3	9.0	6.5	4.1
6	Wholesale trade	2,748	81.9	7.7	9.1	1.4
7	Retail trade	5,821	65.4	14.3	14.3	6.0
8	Transportation and warehousing	2,791	80.5	10.1	6.5	3.0
9	Information	1,814	81.0	6.9	9.1	3.0
10	Finance and insurance	3,648	87.8	4.6	5.4	2.2
11	Real estate and rental and leasing	15,387	68.6	12.9	13.4	5.1
12	Professional, scientific, and technical services	3,729	84.5	6.3	6.3	2.9
13	Management of companies and enterprises	1,089	87.9	6.4	3.7	2.0
14	Administrative and waste management services	2,537	71.7	11.5	10.8	6.0
15	Educational services	917	79.5	8.7	5.0	6.8
16	Health care and social assistance	6,539	78.2	10.2	8.7	3.0
17	Arts, entertainment, and recreation	801	60.8	18.2	12.4	8.6
18	Accommodation and food services	5,568	53.9	26.0	11.6	1.2
19	Other services, except government	1,914	70.1	13.4	11.5	5.1
20	Government	18,616	83.7	5.1	8.1	3.0
	Total	82,885	75.0	10.5	10.2	3.9

Source: BEA and DBEDT, READ.

County Industrial Structure and Sector Contribution to Real GDP Growth

The following tables summarize the 2020 county industry structures, the changes in the shares of tourism intensive sectors from 2001 to 2020 by county, and the sector contribution of real GDP growth in the 2001-2010, 2010-2019, and 2019-2020 periods by county.

City & County of Honolulu

As shown in Table 7 in 2020, Honolulu generated approximately \$62.1 billion of nominal GDP. Government generated the most GDP at about \$15.6 billion or 25.1% of total GDP; followed by real estate and rental and leasing at about \$10.6 billion or 17.0%, health care and social assistance at about \$5.1 billion or 8.2%, construction at about \$3.9 billion or 6.3%, and retail trade at about 3.8 billion or 6.1%. The top five groups accounted for 62.7% of total nominal GDP in 2020.

TABLE 7. NOMINAL GDP BY INDUSTRY IN HONOLULU COUNTY IN 2020

Rank	Industry Group	2020 GDP (\$M)	Share of 2020 Total GDP
1	Government	15,580	25.1%
2	Real estate and rental and leasing	10,551	17.0%
3	Health care and social assistance	5,112	8.2%
4	Construction	3,903	6.3%
5	Retail trade	3,807	6.1%
6	Finance and insurance	3,203	5.2%
7	Professional, scientific, and technical services	3,150	5.1%
8	Accommodation and food services	3,003	4.8%
9	Wholesale trade	2,250	3.6%
10	Transportation and warehousing	2,246	3.6%
11	Administrative and waste management services	1,820	2.9%
12	Information	1,469	2.4%
13	Other services, except government	1,342	2.2%
14	Utilities	1,285	2.1%
15	Manufacturing	1,061	1.7%
16	Management of companies and enterprises	957	1.5%
17	Educational services	729	1.2%
18	Arts, entertainment, and recreation	487	0.8%
19	Agriculture, forestry, fishing, and hunting	106	0.2%
20	Mining	64	0.1%
	Total	62,124	100.0%

Source: BEA and DBEDT, READ.

Table 8 shows the changes in the GDP shares of the four tourism intensive industries in Honolulu. From 2001 to 2020, the total share of the four tourism intensive industries decreased from 19.5% in 2001 to 15.4% in 2020, decreased 4.2 percentage points.

TABLE 8. SHARES OF TOURISM INTENSIVE INDUSTRIES IN HONOLULU COUNTY

Industry Group	% of Total Nominal GDP		
	2001	2020	Changes
Tourism Intensive Sectors in Honolulu			
Retail trade	7.5%	6.1%	-1.4%
Transportation and warehousing	4.6%	3.6%	-1.0%
Arts, entertainment, and recreation	0.9%	0.8%	-0.1%
Accommodation and food services	6.5%	4.8%	-1.7%
Tourism Intensive	19.5%	15.4%	-4.2%

Source: BEA and DBEDT, READ.

From 2001 to 2020, total real GDP (in 2012\$) in Honolulu increased \$10.5 billion or about 24.7%. As shown in Table 9, from 2001 to 2010, total real GDP in Honolulu increased \$10.5 billion; from 2010 to 2019, total real GDP in Honolulu increased \$5.5 billion; from 2019 to 2020, total real GDP in Honolulu decreased \$5.3 billion. From 2019 to 2020, real GDP in Honolulu decreased the most in accommodation and food services, decreased \$1,859 million; followed by transportation and warehousing (decreased \$1,236 million), retail trade (decreased \$446 million), real estate and rental and leasing (decreased \$422 million), and arts, entertainment, and recreation (decreased \$240 million).

TABLE 9. CONTRIBUTION OF ADDITIONAL REAL GDP IN HONOLULU COUNTY

Industry Group	Changes of Real GDP (\$M)		
	2001-2010	2010-2019	2019-2020
1 Finance and insurance	269	295	130
2 Agriculture, forestry, fishing, and hunting	48	(287)	46
3 Utilities	382	(47)	28
4 Construction	610	33	23
5 Mining	(16)	(5)	(3)
6 Government	2,382	(160)	(49)
7 Management of companies and enterprises	36	400	(71)
8 Educational services	136	(88)	(94)
9 Health care and social assistance	851	971	(131)
10 Administrative and waste management services	514	(5)	(147)
11 Manufacturing	18	26	(154)
12 Information	773	213	(156)
13 Wholesale trade	88	237	(167)
14 Professional, scientific, and technical services	660	408	(174)
15 Other services, except government	(266)	70	(225)
16 Arts, entertainment, and recreation	(16)	269	(240)
17 Real estate and rental and leasing	2,434	481	(422)
18 Retail trade	389	601	(446)
19 Transportation and warehousing	1,082	687	(1,236)
20 Accommodation and food services	(42)	1,417	(1,859)
Total	10,331	5,517	(5,345)

Source: BEA and DBEDT, READ.

Maui County

As shown in Table 10, in 2020, Maui generated approximately \$8.7 billion of nominal GDP. Real estate and rental and leasing generated the most GDP at about \$2.0 billion or 22.7% of total GDP; followed by accommodation and food services at about \$1.4 billion or 16.6%, government at about \$1.0 billion or 11.0%, retail trade at about \$0.8 billion or 9.5%, and health care and social assistance at about 0.7 billion or 7.6%. The top five groups accounted for 67.5% of total nominal GDP in 2020.

TABLE 10. NOMINAL GDP BY INDUSTRY IN MAUI COUNTY IN 2020

Rank	Industry Group	2020 GDP (\$M)	Share of 2020 Total GDP
1	Real estate and rental and leasing	1,979	22.7%
2	Accommodation and food services	1,446	16.6%
3	Government	954	11.0%
4	Retail trade	830	9.5%
5	Health care and social assistance	664	7.6%
6	Construction	628	7.2%
7	Administrative and waste management services	291	3.3%
8	Transportation and warehousing	281	3.2%
9	Other services, except government	256	2.9%
10	Professional, scientific, and technical services	235	2.7%
11	Wholesale trade	210	2.4%
12	Finance and insurance	166	1.9%
13	Utilities	166	1.9%
14	Arts, entertainment, and recreation	146	1.7%
15	Information	125	1.4%
16	Manufacturing	119	1.4%
17	Educational services	80	0.9%
18	Management of companies and enterprises	70	0.8%
19	Agriculture, forestry, fishing, and hunting	50	0.6%
20	Mining	4	0.0%
	Total	8,704	100.0%

Source: BEA and DBEDT, READ.

Table 11 shows the changes in the GDP shares of the four tourism intensive industries in Maui. From 2001 to 2020, the total share of the four tourism intensive industries decreased 8.0 percentage points from 39.1% to 31.1% in Maui.

TABLE 11. SHARES OF TOURISM INTENSIVE INDUSTRIES IN MAUI COUNTY

Industry Group	% of Total Nominal GDP		
	2001	2020	Changes
Tourism Intensive Sectors in Maui			
Retail trade	9.6%	9.5%	0.0%
Transportation and warehousing	3.7%	3.2%	-0.5%
Arts, entertainment, and recreation	3.0%	1.7%	-1.4%
Accommodation and food services	22.8%	16.6%	-6.1%
Tourism Intensive	39.1%	31.1%	-8.0%

Source: BEA and DBEDT, READ.

From 2001 to 2020, total real GDP in Maui increased \$1.6 billion or about 26.4%. As shown in Table 12, from 2001 to 2010, total real GDP in Maui increased \$1.4 billion; from 2010 to 2019, total real GDP in Maui increased \$2.0 billion; from 2019 to 2020, total real GDP in Maui decreased \$1.8 billion. From 2019 to 2020, real GDP in Maui decreased the most in accommodation and food services, decreased \$854 million; followed by transportation and warehousing (decreased \$359 million), real estate and rental and leasing (decreased \$184 million), retail trade (decreased \$108 million), and arts, entertainment, and recreation (decreased \$70 million).

TABLE 12. CONTRIBUTION OF ADDITIONAL REAL GDP IN MAUI COUNTY

Industry Group	Changes of Real GDP (\$M)		
	2001-2010	2010-2019	2019-2020
1 Agriculture, forestry, fishing, and hunting	25	1	12
2 Utilities	40	10	8
3 Management of companies and enterprises	(46)	68	7
4 Finance and insurance	(2)	13	6
5 Mining	(5)	(4)	3
6 Professional, scientific, and technical services	38	43	0
7 Information	23	45	(11)
8 Educational services	31	11	(11)
9 Government	193	(55)	(12)
10 Construction	(122)	92	(16)
11 Manufacturing	(4)	31	(20)
12 Health care and social assistance	108	251	(24)
13 Wholesale trade	39	45	(29)
14 Other services, except government	31	29	(46)
15 Administrative and waste management services	105	60	(70)
16 Arts, entertainment, and recreation	5	1	(70)
17 Retail trade	115	227	(108)
18 Real estate and rental and leasing	484	300	(184)
19 Transportation and warehousing	162	258	(359)
20 Accommodation and food services	135	547	(854)
Total	1,355	1,974	(1,776)

Source: BEA and DBEDT, READ.

Hawaii County

As shown in Table 13, in 2020, Hawaii County generated approximately \$8.4 billion of nominal GDP. Real estate and rental and leasing generated the most GDP at about \$2.1 billion or 24.5% of total GDP; followed by government at about \$1.5 billion or 18.0%, retail trade at about \$0.8 billion or 9.9%, accommodation and food services at about \$0.6 billion or 7.7%, and construction at about \$0.6 billion or 6.8%. The top five groups accounted for 66.8% of total nominal GDP in 2020.

TABLE 13. NOMINAL GDP BY INDUSTRY IN HAWAII COUNTY IN 2020

Rank	Industry Group	2020 GDP (\$M)	Share of 2020 Total GDP
1	Real estate and rental and leasing	2,067	24.5%
2	Government	1,515	18.0%
3	Retail trade	834	9.9%
4	Accommodation and food services	648	7.7%
5	Construction	570	6.8%
6	Health care and social assistance	570	6.8%
7	Administrative and waste management services	274	3.3%
8	Wholesale trade	250	3.0%
9	Professional, scientific, and technical services	235	2.8%
10	Utilities	225	2.7%
11	Other services, except government	220	2.6%
12	Agriculture, forestry, fishing, and hunting	206	2.4%
13	Finance and insurance	199	2.4%
14	Transportation and warehousing	180	2.1%
15	Information	165	2.0%
16	Arts, entertainment, and recreation	99	1.2%
17	Manufacturing	86	1.0%
18	Educational services	46	0.5%
19	Management of companies and enterprises	40	0.5%
20	Mining	0	0.0%
	Total	8,429	100.0%

Source: BEA and DBEDT, READ.

Table 14 shows the changes in the GDP shares of the four tourism intensive industries in Hawaii County. From 2001 to 2020, the total share of the four tourism intensive industries decreased 9.6 percentage points from 30.5% to 20.9% in Hawaii County.

TABLE 14. SHARES OF TOURISM INTENSIVE INDUSTRIES IN HAWAII COUNTY

Industry Group	% of Total Nominal GDP		
	2001	2020	Changes
Tourism Intensive Sectors in Hawaii County			
Retail trade	9.9%	9.9%	0.0%
Transportation and warehousing	4.2%	2.1%	-2.0%
Arts, entertainment, and recreation	1.7%	1.2%	-0.5%
Accommodation and food services	14.7%	7.7%	-7.0%
Tourism Intensive	30.5%	20.9%	-9.6%

Source: BEA and DBEDT, READ.

From 2001 to 2020, total real GDP in Hawaii County increased \$2.3 billion or about 45.3%. As shown in Table 15, from 2001 to 2010, total real GDP in Hawaii County increased \$1.4 billion; from 2010 to 2019, total real GDP in Hawaii County increased \$1.9 billion; from 2019 to 2020, total real GDP in Hawaii County decreased \$1.0 billion. From 2019 to 2020, real GDP in Hawaii County decreased the most in accommodation and food services, decreased \$499 million; followed by transportation and warehousing (decreased \$213 million), retail trade (decreased \$65 million), arts, entertainment, and recreation (decreased \$41 million), and management of companies and enterprises (decreased \$39 million).

TABLE 15. CONTRIBUTION OF ADDITIONAL REAL GDP IN HAWAII COUNTY

Industry Group	Changes of Real GDP (\$M)		
	2001-2010	2010-2019	2019-2020
1 Real estate and rental and leasing	523	170	38
2 Construction	7	(75)	21
3 Finance and insurance	44	35	3
4 Utilities	74	5	1
5 Mining	(4)	(7)	(0)
6 Administrative and waste management services	75	58	(2)
7 Information	123	16	(8)
8 Professional, scientific, and technical services	64	27	(9)
9 Manufacturing	19	(4)	(11)
10 Government	182	198	(16)
11 Educational services	28	(14)	(17)
12 Wholesale trade	18	87	(20)
13 Other services, except government	29	17	(24)
14 Agriculture, forestry, fishing, and hunting	44	163	(24)
15 Health care and social assistance	104	125	(31)
16 Management of companies and enterprises	(36)	46	(39)
17 Arts, entertainment, and recreation	(77)	111	(41)
18 Retail trade	105	257	(65)
19 Transportation and warehousing	82	110	(213)
20 Accommodation and food services	23	543	(499)
Total	1,428	1,865	(957)

Source: BEA and DBEDT, READ.

Kauai County

As shown in Table 16, in 2020, Kauai generated approximately \$3.2 billion of nominal GDP. Real estate and rental and leasing generated the most GDP at about \$0.8 billion or 24.5% of total GDP; followed by government at about \$0.6 billion or 17.5%, retail trade at about \$0.3 billion or 10.8%, construction at about \$0.3 billion or 8.9%, and health care and social assistance at about 0.2 billion or 6.0%. The top five groups accounted for 67.7% of total nominal GDP in 2020.

TABLE 16. NOMINAL GDP BY INDUSTRY IN KAUAI COUNTY IN 2020

Rank	Industry Group	2020 GDP (\$M)	Share of 2020 Total GDP
1	Real estate and rental and leasing	790	21.8%
2	Government	567	15.6%
3	Retail trade	349	9.6%
4	Construction	288	7.9%
5	Health care and social assistance	193	5.3%
6	Administrative and waste management services	152	4.2%
7	Utilities	128	3.5%
8	Professional, scientific, and technical services	110	3.0%
9	Other services, except government	97	2.7%
10	Transportation and warehousing	84	2.3%
11	Finance and insurance	81	2.2%
12	Arts, entertainment, and recreation	69	1.9%
13	Accommodation and food services	69	1.9%
14	Educational services	62	1.7%
15	Information	55	1.5%
16	Manufacturing	54	1.5%
17	Wholesale trade	38	1.1%
18	Management of companies and enterprises	22	0.6%
19	Agriculture, forestry, fishing, and hunting	21	0.6%
20	Mining	0	0.0%
	Total	3,627	100.0%

Source: BEA and DBEDT, READ.

Table 17 shows the changes in the GDP shares of the four tourism intensive industries in Kauai. From 2001 to 2020, the total share of the four tourism intensive industries decreased 17.0 percentage points from 34.7% to 17.7% in Kauai.

TABLE 17. SHARES OF TOURISM INTENSIVE INDUSTRIES IN KAUAI COUNTY

Industry Group	% of Total Nominal GDP		
	2001	2020	Changes
Tourism Intensive Sectors in Kauai			
Arts, entertainment, and recreation	9.7%	10.8%	1.2%
Transportation and warehousing	0.8%	2.6%	1.8%
Arts, entertainment, and recreation	2.2%	2.1%	-0.1%
Accommodation and food services	22.1%	2.1%	-20.0%
Tourism Intensive	34.7%	17.7%	-17.0%

Source: BEA and DBEDT, READ.

From 2001 to 2020, total real GDP in Kauai increased \$339 million or about 14.3%. As shown in Table 18, from 2001 to 2010, total real GDP in Kauai increased \$514 million; from 2010 to 2019, total real GDP in Kauai increased \$203 million; from 2019 to 2020, total real GDP in Kauai decreased \$379 million. From 2019 to 2020, real GDP in Kauai decreased the most in transportation and warehousing, decreased \$75 million; followed by accommodation and food services (decreased \$68 million), real estate and rental and leasing (decreased \$65 million), administrative and waste management services (decreased \$48 million), and retail trade (decreased \$40 million).

TABLE 18. CONTRIBUTION OF ADDITIONAL REAL GDP IN KAUAI COUNTY

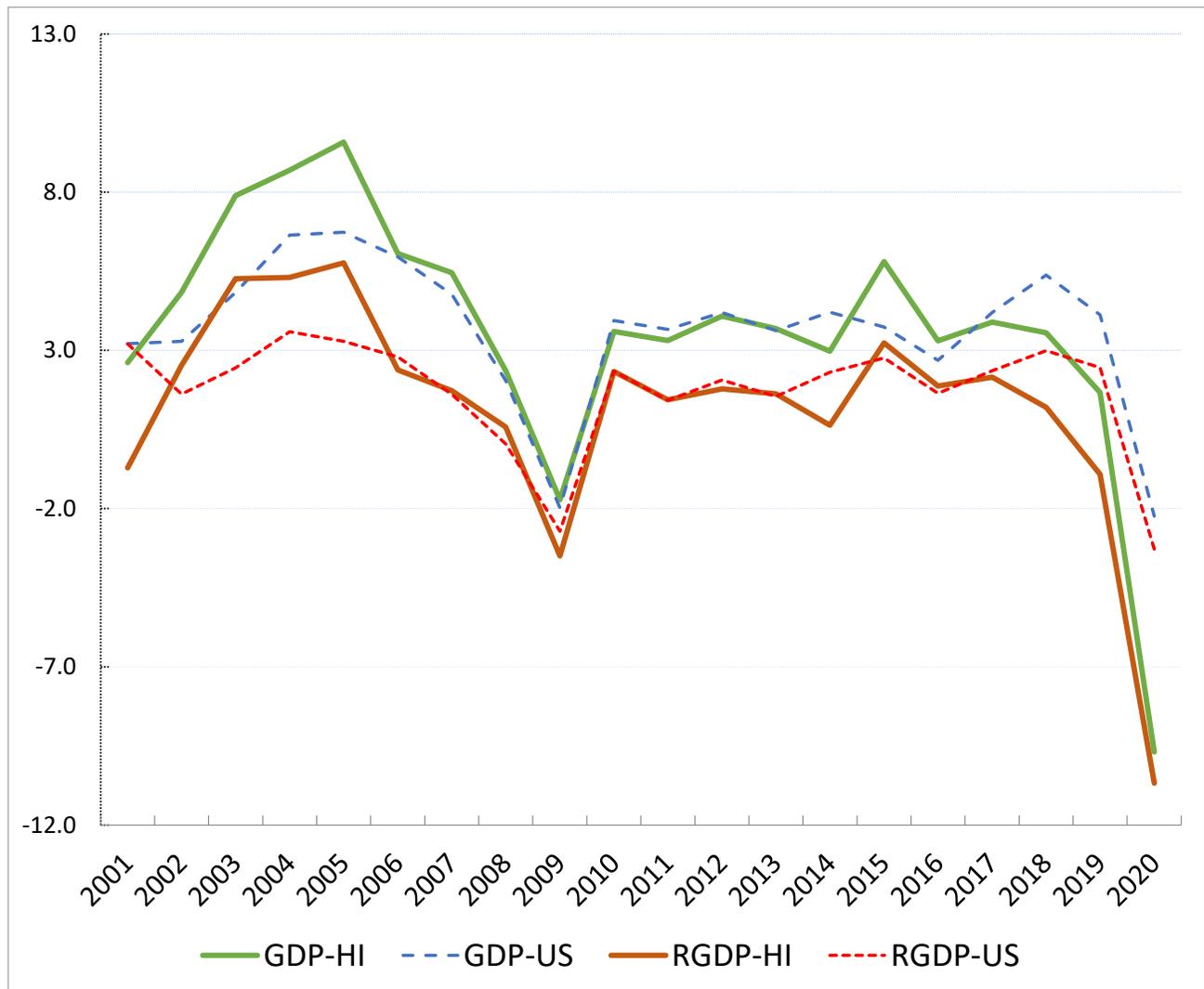
Industry Group	Changes of Real GDP (\$M)		
	2001-2010	2010-2019	2019-2020
1 Agriculture, forestry, fishing, and hunting	(26)	(3)	15
2 Management of companies and enterprises	(17)	(18)	11
3 Finance and insurance	(8)	(28)	11
4 Government	58	62	2
5 Educational services	14	21	1
6 Wholesale trade	14	(24)	(1)
7 Information	4	28	(3)
8 Professional, scientific, and technical services	32	30	(5)
9 Mining	(5)	1	(7)
10 Manufacturing	1	39	(8)
11 Health care and social assistance	(5)	54	(12)
12 Other services, except government	14	8	(13)
13 Construction	96	7	(18)
14 Utilities	57	(21)	(23)
15 Arts, entertainment, and recreation	133	(97)	(34)
16 Retail trade	29	113	(40)
17 Administrative and waste management services	44	54	(48)
18 Real estate and rental and leasing	278	53	(65)
19 Accommodation and food services	(241)	(146)	(68)
20 Transportation and warehousing	42	72	(75)
Total	514	203	(379)

Source: BEA and DBEDT, READ.

IV. COMPARISON BETWEEN HAWAII AND THE NATION

Hawaii's economy performed differently from the national economy. As shown in Figure 6, from 2002 to 2009, Hawaii's annual growth rates of nominal GDP and real GDP were mostly above that of the nation. For the other years between 2001 and 2020; however, Hawaii's annual growth rates of nominal and real GDP were mostly below the national growth rates.

FIGURE 6. COMPARISON OF ANNUAL GDP GROWTH RATE, 2001-2020

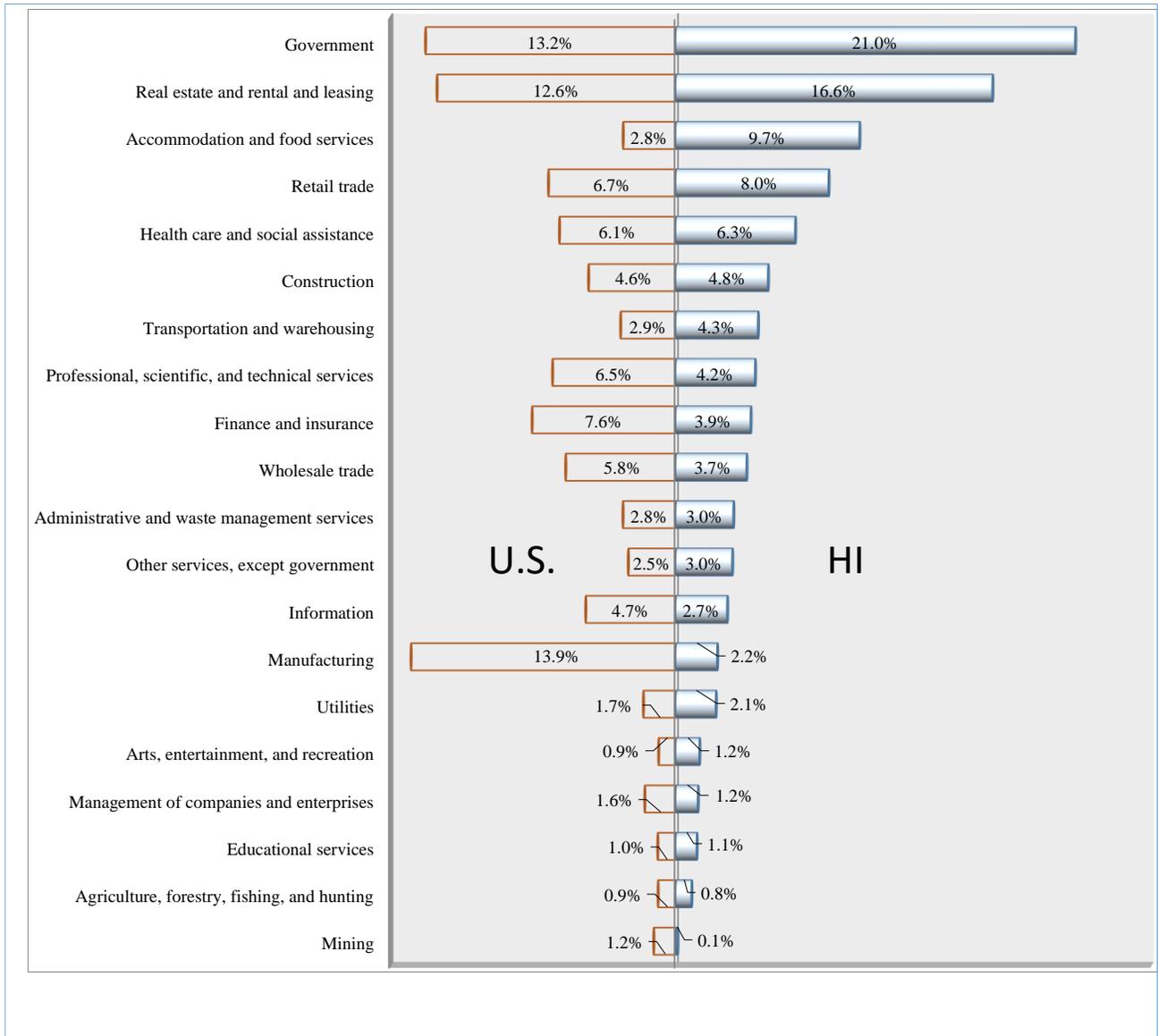


Comparison of Industrial Structures

Due to the unique nature of Hawaii, its industrial structure is significantly different from that of the nation. As shown in Figure 7, in 2001, the top 5 sectors that generated the most nominal GDP in Hawaii were government (21.0%), real estate and rental and leasing (16.6%), accommodation and food services (9.7%), retail trade (8.0%) and health care and social assistance (6.3%). Together these sectors generated 61.6% of Hawaii's total nominal GDP in 2001. In comparison, the same sectors generated only 41.3% of the U.S. total nominal GDP.

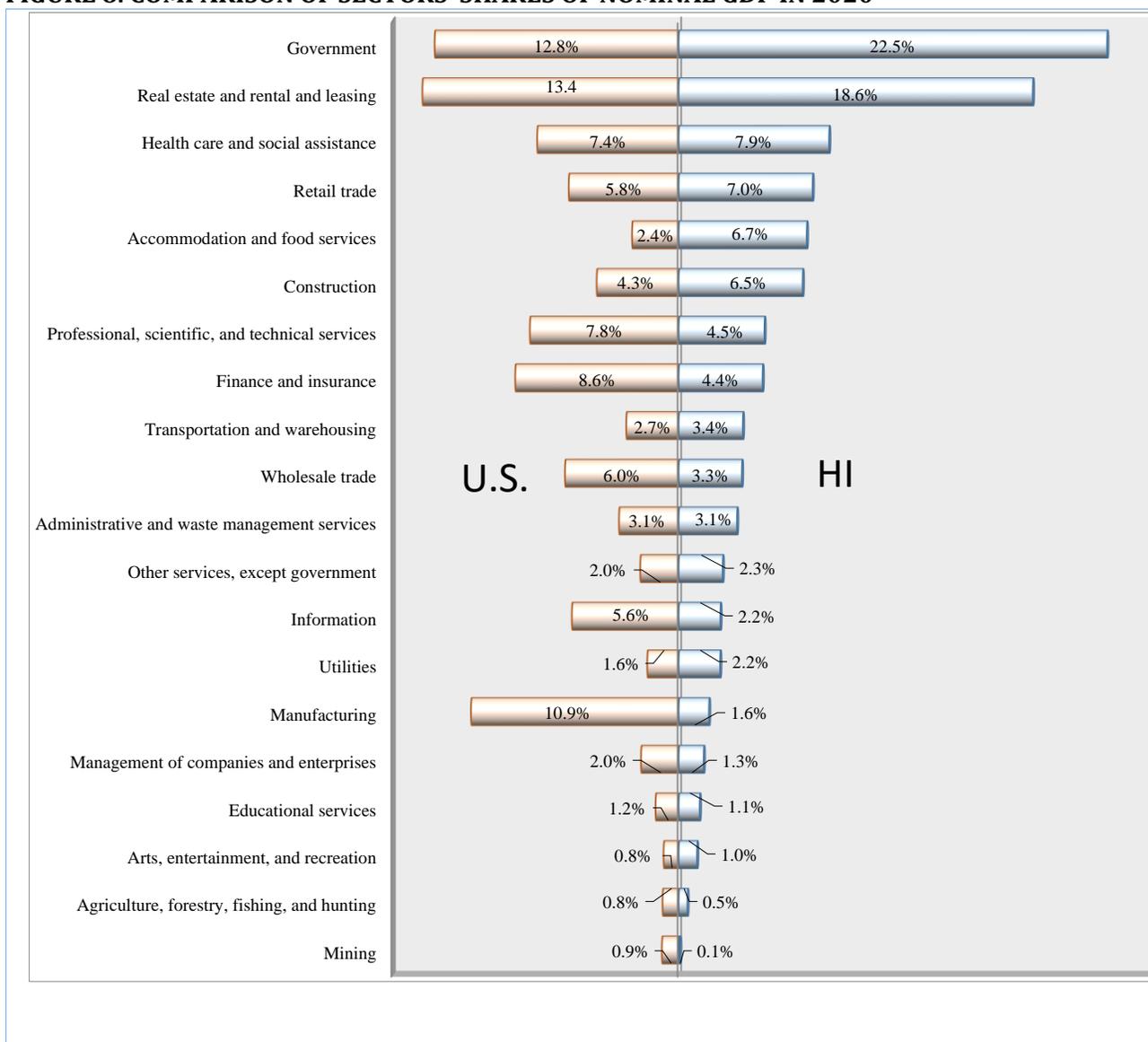
The largest gap (the share of Hawaii above the share of the U.S.) between Hawaii and the nation was in government (7.8 percentage points); followed by accommodation and food services (6.9 percentage points), real estate and rental and leasing (4.1 percentage points), transportation and warehousing (1.4 percentage point), and retail trade (1.3 percentage point). The largest negative gap (the share of Hawaii below the share of the U.S.) was in manufacturing (11.7 percentage points); followed by finance and insurance (3.6 percentage points), professional, scientific, and technical services (2.3 percentage points), wholesale trade (2.1 percentage points), and information (2.0 percentage points).

FIGURE 7. COMPARISON OF SECTORS' SHARES OF NOMINAL GDP IN 2001



As shown in Figure 8, in 2020, the top 5 sectors in Hawaii were government (22.5%), real estate and rental and leasing (18.6%), health care and social assistance (7.9%), retail trade (7.0%) and accommodation and food services (6.7%). Together these sectors generated 62.7% of Hawaii's total nominal GDP in 2020. In comparison, the same sectors generated only 41.8% of the U.S. total nominal GDP in 2020. The largest gap between Hawaii and the nation was in government (9.7 percentage points); followed by real estate and rental and leasing (5.1 percentage points), accommodation and food services (4.3 percentage points), construction (2.2 percentage points), and retail trade (1.3 percentage point). The largest negative gap was in manufacturing (9.3 percentage points); followed by finance and insurance (4.2 percentage points), information (3.4 percentage points), professional, scientific, and technical services (3.3 percentage points), and wholesale trade (2.6 percentage points).

FIGURE 8. COMPARISON OF SECTORS' SHARES OF NOMINAL GDP IN 2020



Comparison of Real GDP Growth Rates by Sector

The sector contributions of real GDP growth from 2001 to 2020 are provided in Table 19. In Hawaii, the real estate and rental and leasing sector contributed the most real GDP at about 27.8%; followed by government at about 18.9%, health care and social assistance at about 15.3%, retail trade at about 8.0%, and professional, scientific, and technical services at about 7.6%. The top five groups in Hawaii accounted for 77.6% of total additional real GDP from 2001 to 2020. The same five groups in the U.S. accounted for 46.4% of total additional real GDP from 2001 to 2020. The top five groups in the U.S. are information, real estate and rental and leasing, professional, scientific, and technical services, manufacturing, and health care and social assistance. The top five groups in the U.S. accounted for 66.4% of total additional real GDP from 2001 to 2020, and the same five groups in Hawaii accounted for 57.3% of total additional real GDP from 2001 to 2020.

The gap between Hawaii and the U.S. was largest in government, with the share of Hawaii above that of the nation by 14.9 percentage points; followed by real estate and rental and leasing by 13.5 percentage points, and construction by 6.9 percentage points. On the other hand, the share of Hawaii in manufacturing was below that of the nation by 12.0 percentage points; followed by information by 10.3 percentage points.

TABLE 19. COMPARISON OF CONTRIBUTION OF ADDITIONAL REAL GDP, 2001-2020

	Industry Group	% of Additional Real GDP 2001-2020		
		HI	U.S.	HI above U.S.
1	Real estate and rental and leasing	27.8%	14.2%	13.5%
2	Government	18.9%	4.0%	14.9%
3	Health care and social assistance	15.3%	10.3%	5.0%
4	Retail trade	8.0%	4.9%	3.1%
5	Professional, scientific, and technical services	7.6%	12.9%	-5.4%
6	Information	7.1%	17.4%	-10.3%
7	Finance and insurance	5.2%	6.1%	-0.9%
8	Construction	4.5%	-2.4%	6.9%
9	Administrative and waste management services	4.3%	4.2%	0.1%
10	Transportation and warehousing	4.1%	1.9%	2.2%
11	Utilities	3.5%	1.7%	1.8%
12	Management of companies and enterprises	2.3%	3.1%	-0.8%
13	Wholesale trade	1.9%	5.5%	-3.5%
14	Educational services	0.1%	1.0%	-0.8%
15	Agriculture, forestry, fishing, and hunting	0.1%	2.1%	-1.9%
16	Mining	-0.3%	3.4%	-3.8%
17	Arts, entertainment, and recreation	-0.4%	0.0%	-0.4%
18	Manufacturing	-0.5%	11.5%	-12.0%
19	Other services, except government	-2.6%	-1.4%	-1.2%
20	Accommodation and food services	-7.1%	-0.6%	-6.4%
	Total	100.0%	100.0%	0.0%

Source: BEA and DBEDT, READ.

The sector contribution of real GDP growth from 2001 to 2010 are provided in Table 20. In Hawaii, the real estate and rental and leasing sector contributed the most real GDP at about 27.3%; followed by government at about 20.6%, transportation and warehousing at about 10.0%, health care and social assistance at about 7.8%, and information at about 6.8%. The top five groups in Hawaii accounted for 72.5% of total additional real GDP from 2001 to 2010. The same five groups in the U.S. accounted for 58.9% of total additional real GDP from 2001 to 2010.

The gap between Hawaii and the U.S. was largest in construction with the share of Hawaii above that of the nation by 14.5 percentage points; followed by government by 12.1 percentage points, real estate and rental and leasing by 7.8 percentage points, and transportation and warehousing by 7.0 percentage points. On the other hand, the share of Hawaii in manufacturing was below that of the nation by 15.1 percentage point; followed by information by 7.4 percentage points, health care and social assistance by 5.9 percentage points, wholesale trade by 4.8 percentage points, and professional, scientific, and technical services by 4.5 percentage points.

TABLE 20. COMPARISON OF CONTRIBUTION OF ADDITIONAL REAL GDP, 2001-2010

	Industry Group	% of Additional Real GDP 2001-2010		
		HI	U.S.	HI above U.S.
1	Real estate and rental and leasing	27.3%	19.5%	7.8%
2	Government	20.6%	8.6%	12.1%
3	Transportation and warehousing	10.0%	3.0%	7.0%
4	Health care and social assistance	7.8%	13.7%	-5.9%
5	Information	6.8%	14.1%	-7.4%
6	Professional, scientific, and technical services	5.8%	10.4%	-4.5%
7	Administrative and waste management services	5.4%	4.7%	0.7%
8	Retail trade	4.7%	2.3%	2.3%
9	Construction	4.3%	-10.2%	14.5%
10	Utilities	4.1%	2.4%	1.7%
11	Finance and insurance	2.2%	5.1%	-2.9%
12	Educational services	1.5%	2.6%	-1.0%
13	Wholesale trade	1.2%	5.9%	-4.8%
14	Agriculture, forestry, fishing, and hunting	0.7%	1.7%	-1.0%
15	Arts, entertainment, and recreation	0.3%	1.3%	-1.0%
16	Manufacturing	0.2%	15.3%	-15.1%
17	Mining	-0.2%	1.8%	-2.0%
18	Management of companies and enterprises	-0.5%	-0.9%	0.4%
19	Accommodation and food services	-0.9%	0.6%	-1.5%
20	Other services, except government	-1.4%	-2.0%	0.6%
	Total	100.0%	100.0%	0.0%

Source: BEA and DBEDT, READ.

The sector contribution of real GDP growth from 2010 to 2020 are provided in Table 21. In Hawaii, the health care and social assistance sector contributed the most real GDP at about 108.4%; followed by retail trade at about 48.5%, and finance and insurance at about 42.2%.

TABLE 21. COMPARISON OF CONTRIBUTION OF ADDITIONAL REAL GDP, 2010-2020

	Industry Group	% of Additional Real GDP 2010-2020		
		HI	U.S.	HI above U.S.
1	Health care and social assistance	108.4%	7.7%	100.7%
2	Retail trade	48.5%	7.0%	41.6%
3	Finance and insurance	42.2%	6.9%	35.2%
4	Management of companies and enterprises	36.4%	6.2%	30.2%
5	Real estate and rental and leasing	33.5%	10.0%	23.4%
6	Professional, scientific, and technical services	28.9%	14.9%	14.0%
7	Wholesale trade	11.4%	5.1%	6.3%
8	Information	11.2%	20.0%	-8.8%
9	Construction	6.1%	3.8%	2.3%
10	Mining	-1.9%	4.7%	-6.7%
11	Government	-2.3%	0.5%	-2.7%
12	Utilities	-3.7%	1.2%	-4.9%
13	Agriculture, forestry, fishing, and hunting	-6.9%	2.3%	-9.2%
14	Administrative and waste management services	-9.0%	3.8%	-12.8%
15	Arts, entertainment, and recreation	-9.1%	-1.0%	-8.1%
16	Manufacturing	-9.1%	8.5%	-17.6%
17	Other services, except government	-16.7%	-0.9%	-15.8%
18	Educational services	-17.1%	-0.3%	-16.7%
19	Transportation and warehousing	-68.1%	1.1%	-69.2%
20	Accommodation and food services	-82.8%	-1.6%	-81.2%
	Total	100.0%	100.0%	0.0%

Source: BEA and DBEDT, READ.